

Missouri Jobs by Education and Skill Levels



May 2021

Missouri has a wide range of occupations that require various levels of education and skill. This report will highlight the employment, openings, and wages of occupations based on education and skill level during the projection period of 2018 to 2028. Generally, occupations requiring lower education and skill levels produce the largest number of job opportunities, but occupations requiring higher education and skill levels have faster growth and higher wages.

Jobs by Education Level

Education categories represent the typical education level most workers need to enter an occupation, as determined by the U.S. Bureau of Labor Statistics. Education is very important in terms of median wages, as well as the risk of unemployment. Individuals with an education of less than a high school degree had an average unemployment rate of 11 percent versus a rate of 1.7 percent for those who have earned a bachelor's degree or higher.

Employment by Education Level

Among the different education categories, occupations that typically require a high school diploma or less make up a majority of employment in Missouri, with over 1.9 million jobs in 2018. This represents 64 percent of total employment in 2018, with a slight drop to 63 percent projected by 2028. Occupations that typically require a bachelor's degree represent 20.6 percent of total employment in 2018, with a slight increase to 21.2 percent projected by 2028.

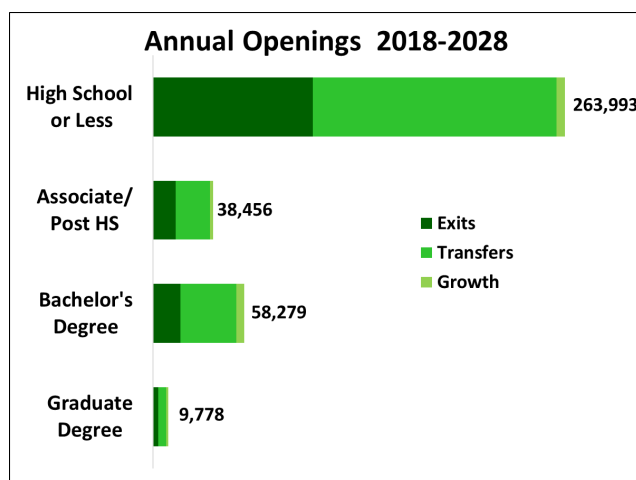
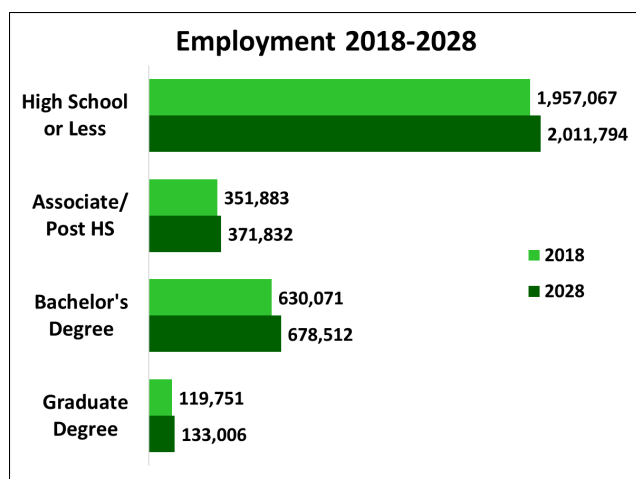
Openings by Education Level

Total job openings are divided into growth openings, exit openings and transfer openings. Growth openings are the result of an occupation growing between the base year and projected year. Exit openings occur when workers leave the workforce entirely. Transfer openings occur when workers leave their occupation for a different one. Across all the education categories, most of the openings are a result of transfers, followed by exits. Therefore, there will be a continued need to replace workers that either leave the workforce entirely or move to a different occupation along their career pathway.

Missouri Unemployment by Education

Educational Attainment	Unemployment Rate
Less than high school	11.0%
High school (includes equivalency)	4.8%
Some college/associate degree	3.0%
Bachelor's degree or higher	1.7%

Population aged 25-64. U.S. Census Bureau, 2018 American Community Survey 1-Year Estimate

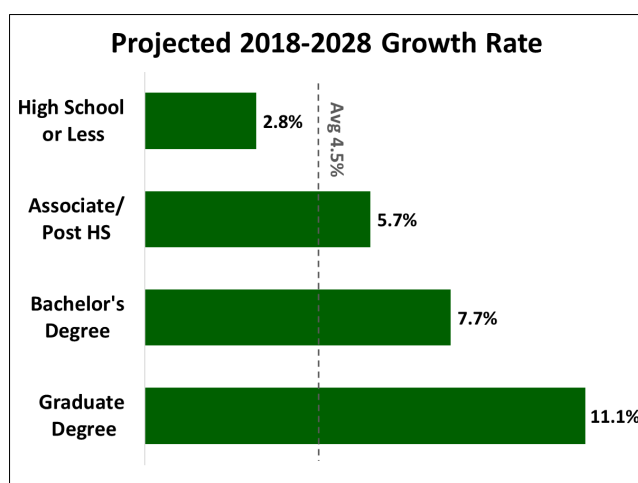


There are projected to be more than 370,000 annual total openings between 2018 and 2028. Occupations that typically require a high school diploma or less are projected to account for 71.3 percent of these openings. The large numbers of openings in occupations that require lower levels of educational attainment is partly due to the high turnover rate in those occupations. A large number of individuals in these occupations are just starting on their career paths and are more likely to move to other occupations, while individuals in occupations that require higher levels of education are more likely to be farther along in their career paths and less likely to leave their jobs.

Generally, occupations that require higher levels of education have a greater percentage of their openings coming from growth, as compared to occupations requiring lower levels of education. Graduate degree occupations have the highest percentage of their openings coming from growth, with 13.5 percent. While occupations that typically require a bachelor's degree only account for 15.7 percent of total openings during the projection period, they make up 35.5 percent of all growth openings.

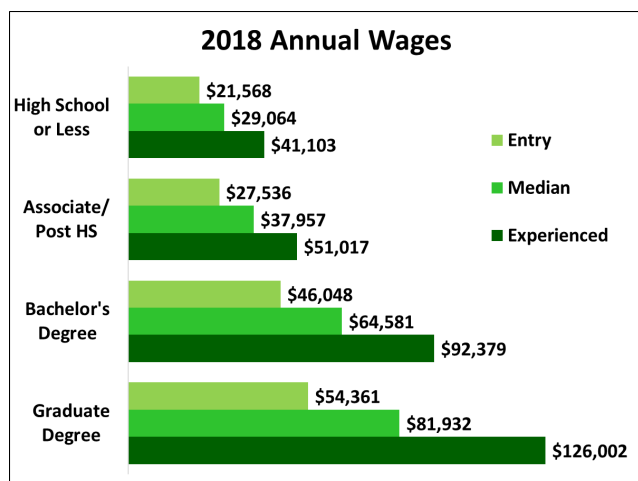
Growth Rate by Education Level

While occupations that typically require a graduate degree have less total employment when compared to the other education categories, they are projected to experience the fastest growth between 2018 and 2028, with a growth rate of 11.1 percent. This is over twice the 4.5 percent average growth rate for all occupations in the state. The growth in occupations that typically require a graduate degree is largely fueled by the *Healthcare Practitioners, Community and Social Service* and *Education* major occupation groups. Occupations that typically require a bachelor's degree have the next highest growth rate at 7.7 percent.



Wages by Education Level

Generally, occupations that require more education earn higher wages. Occupations that typically require a graduate degree earn, as a group, a median annual wage of \$81,932. This is 182 percent higher than the median annual wage of \$29,064 for occupations that typically require a high school diploma or less. Occupations that typically require a bachelor's degree earn a median annual wage of \$64,581, which is 122 percent higher than the median annual wage for occupations that typically require a high school diploma or less.



As workers progress in their careers and earn experienced wages, the differences between educational requirements become even greater. Occupations that require a graduate degree earn experienced level wages that are 207 percent higher than experienced-level wages for occupations requiring a high school diploma or less, while occupations requiring a bachelor's degree earn 125 percent more than occupations requiring a high school diploma or less.

Jobs by Skill Level

Occupations are divided into NOW, NEXT, and LATER categories based on the preparation and skills often required to enter into an occupation. NOW occupations require the least amount of preparation with a typical educational requirement of a high school diploma or less, no experience, on-the-job training of less than one month, and little vocational preparation. NEXT occupations typically require moderate levels of training or experience. Occupations at the higher end of the NEXT category require extensive experience, apprenticeships, non-degree certificates, or associate degrees. LATER occupations require the most amount of preparation, with a bachelor's degree typically required for entry.

Employment by Skill Level

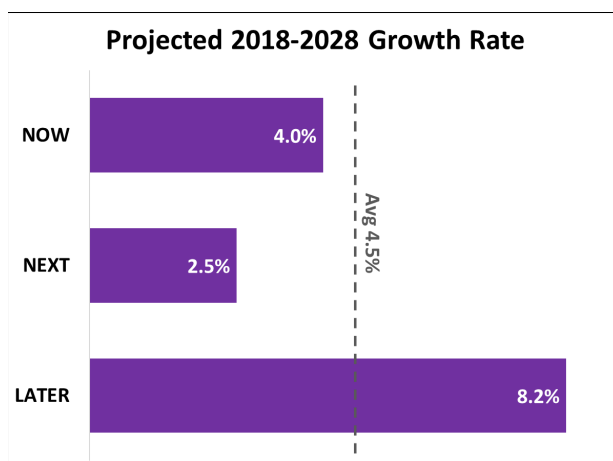
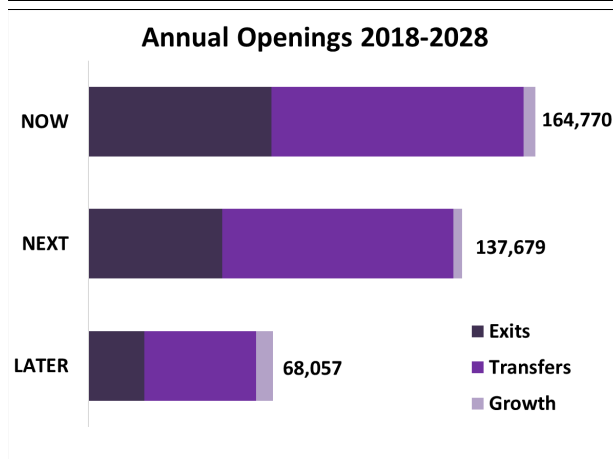
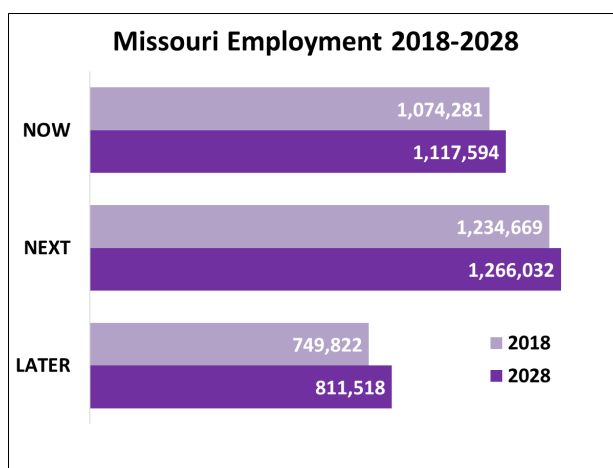
Among the NOW, NEXT, and LATER categories, the NEXT category has the largest employment with more than 1.2 million jobs in 2018. This represents 40.4 percent of total employment in 2018. By 2028, this percentage is projected to drop slightly to 39.6 percent. NOW occupations have the second highest employment with over one million jobs and 35.1 percent of the total employment in 2018. LATER occupations had the lowest employment in 2018, but are projected to have the greatest increase in share of total employment, going from 24.5 percent in 2018 to 25.4 percent in 2028.

Openings by Skill Level

There are projected to be over 370,000 total job openings each year between 2018 and 2028. NOW occupations are projected to account for 44.5 percent of these openings. Of the over 164,000 total annual openings for NOW occupations, 2.6 percent are from actual new job growth. LATER occupations are projected to have 9.1 percent of their openings coming from new job growth. Across all three skill levels, the majority of openings are transfer openings.

Growth Rate

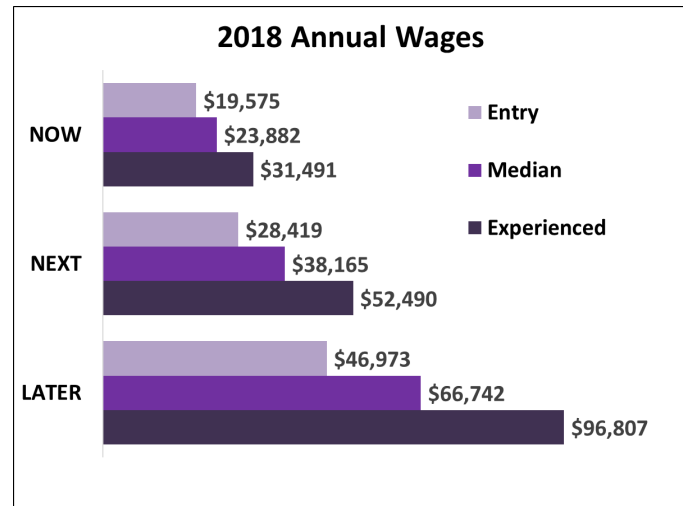
LATER occupations are projected to have the highest growth rate, at 8.2 percent. This is higher than the average growth rate of 4.5 percent for all occupations. The major occupational groups of *Healthcare Practitioners, Computer and Mathematical, Management, and Business and Financial Operations* are projected to contribute the most jobs to the LATER occupations growth rate.



Wages

LATER occupations earn the highest wages, with a median annual wage of \$66,742. This is 179 percent higher than the median wage for NOW occupations, and 74.9 percent higher than the median wage for NEXT occupations. Average entry-level wages for LATER occupations are 140 percent higher than entry wages for NOW occupations and 65.3 percent higher than entry wages for NEXT occupations.

The differences in wages between skill levels is even greater when comparing experienced level wages. The average experienced level wages for LATER occupations, at \$96,807, is more than three times the experienced level wage for NOW occupations and nearly double the experienced level wage for NEXT occupations.



Conclusion

In general, occupations that require higher levels of education and skill have higher wages and faster projected growth, while occupations that require lower education or skill levels have a greater number of job openings. Even though occupations that require lower levels of education and skill are not expected to have high growth rates, the high turnover rate in these occupations ensures a large number of job openings during the projection period. This high demand for lower education and skill occupations is not unique to Missouri and is common across other state and national economies. These jobs can be the entry point for higher skill jobs, such as NEXT or LATER occupations, that offer higher wages.

Data Sources:

- U.S. Census Bureau, American Community Survey for Unemployment Rates.
- Missouri Economic Research and Information Center (MERIC), 2018-2028 Occupational Employment Projections for employment, openings, and growth rate data.
- U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics (OEWS) for wage data.

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